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CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS



1954 Census of Manufactures



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1954 CENSUS OF MANUFACTURES REPORTS

INDUSTRY BULLETINS—Each bulletin contains introductory text and data for groups of related manufacturing industries, showing for each industry: 1954 statistics on detailed product shipments and materials consumption in terms of quantity and value, cost of fuels and electric energy, value added by manufacture, employment, payrolls, man-hours, inventories, new capital expenditures, horsepower of power equipment, and number of manufacturing establishments, with historical comparisons. Value of shipments, cost of materials, capital expenditures, and employment and payroll data are shown for each industry by geographic region and State. Number of employees, value added by manufacture, and number of establishments are shown by size class of establishment within industry. Data are provided on selected measures for specialized product plants.

STATE BULLETINS—Each bulletin contains introductory text and data for each State, showing for the State: 1954 statistics on value of shipments, value added by manufacture, employment, payrolls, man-hours, new capital expenditures, and number of manufacturing establishments for important industries and industry groups, with historical comparisons. For the State's important metropolitan areas and industrial counties, similar data are shown by industry group. Totals for all manufacturing industries are shown for the above statistics (except value of shipments) for all counties, standard metropolitan areas, and cities with 10,000 or more population. The number of establishments in each major industry group are presented by size of establishment within county.

SUBJECT BULLETINS—Each bulletin contains introductory text and detailed statistics for an individual subject, such as: Employment, payrolls, and man-hours; size of establishments; inventories; new capital expenditures; horsepower of power equipment; fuels and electric energy; industrial water use; important materials consumed.

CENSUS VOLUMES—The Industry, State, and Subject bulletins described above will be consolidated and issued as three separate bound volumes, together with full explanatory texts and technical appendixes. In addition, there will be a general summary chapter in all three volumes, summary statistics chapters for major industry groups in the Industry volume, and summary statistics chapters for geographic divisions in the Area volume.

SUGGESTED IDENTIFICATION

U. S. Bureau of the Census. *U. S. Census of Manufactures: 1954*
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Shapes and Forms
U. S. Government Printing Office, Washington, D. C., 1958

INTRODUCTION

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1. General

This report on the consumption of copper mill shapes and forms is one of a series of special bulletins from the 1954 Census of Manufactures. This series supplements the 81 Industry bulletins, 49 State bulletins, and 12 Summary bulletins which represent the basic publications of that Census. The industry bulletins provide detailed statistics for each of about 460 manufacturing industries. The data included for each industry are: number of employees, number of production workers, wages, man-hours, expenditures for plant and equipment, electric energy consumed, and various other measures. Data by State and size of establishment for each industry are included in these bulletins. In addition, the value of shipments for individual products and product classes are shown for each industry. The 81 Industry bulletins will be assembled and published later as Volume II, Industry Statistics, of the 1954 Census of Manufactures. The 49 State bulletins present statistics on employment, salaries and wages, value added by manufacture, and other key measures for States, standard metropolitan areas, counties, and selected cities by industrial groupings. Data by size of establishment are also included. The 49 State bulletins will be assembled as Volume III, Area Statistics, of the 1954 Census of Manufactures. The 12 Summary bulletins will be brought together to form Volume I, Summary Statistics.

The 1954 Census of Manufactures is the twenty-fifth such census of the United States. The first Census of Manufactures covered 1809, and a census was taken at 10-year intervals in connection with the Decennial Census of Population upto and including 1899 (with the exception of 1829). It was conducted at 5-year intervals from 1904 through 1919, and every other year from 1921 through 1939, but was suspended during World War II. After the war, the census was resumed, covering 1947. New legislation subsequently provided for a Census of Manufactures every 5 years, with annual sample surveys authorized for interim years. Such Annual Surveys of Manufactures were taken during the years 1949 through 1953.

The 1954 Census is the first complete one since 1947; the next one is scheduled for 1958. For 1954, it was conducted jointly with the Censuses of Business (Wholesale, Retail, and Services) and Mineral Industries, covering the continental United States, Alaska, and Hawaii. Separate Censuses of Manufactures and Business for 1954 were also conducted in Puerto Rico jointly with the Commonwealth Government.

2. Definition of Manufacturing Industries

The 1954 Census of Manufactures covers all establishments primarily engaged in manufacturing as defined in the Standard Industrial Classification Manual, Volume I, Manufacturing Industries, dated November 1945, as amended by the Bureau of the Budget. This system of classification is in general use among Government agencies and also outside the Government. The Manual defines manufacturing as the mechanical or chemical transformation of inorganic or organic substances into new

products. The assembly of component parts of products is also considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills, which characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfer to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salesmen. Some activities of a service nature (enameling, engraving, etc.) when performed primarily for the trade are included in manufacturing; when performed primarily to the order of the household consumer, they are considered nonmanufacturing.

The Standard Industrial Classification Manual, issued November 1945, was amended slightly by the Bureau of the Budget prior to the 1954 Census. In classifying establishments by industry in the 1954 Census of Manufactures, the Census Bureau followed the amended version of the Standard Industrial Classification. Significant changes in the standard classification from the 1945 edition are discussed in the introductory texts for the industries affected.

3. Definition of Establishment

The Census of Manufactures is conducted on an establishment basis. That is, a company operating establishments at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if the plant records permit such a separation and if the activities are substantial in size. Census tabulations of establishment reports, therefore, differ substantially from those prepared on a company basis, i.e., from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the nonmanufacturing activities of companies primarily engaged in manufacturing. Census figures will also differ to some extent from other tabulations based on establishment reports, where the definition of an establishment as to location and line of activity is not so rigidly applied.

In 1954, as in earlier years, a minimum size limit was set for including establishments in the census. In both the 1954 and 1947 Censuses, reports were required from all establishments employing one or more persons at any time during the census year, whereas in prior Censuses establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the Census figures except for data on number of establishments for a few industries.

4. Industry Classification of Establishments

Each of the establishments covered in the census was classified in one of approximately 460 manufacturing industries in accordance with the industry definitions embodied in the Standard Industrial Classification system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or more or less closely related group of products. The product groupings from which industry classifications are derived are based on such considerations as whether they are typically produced by the same establishment,

similarity of manufacturing processes, types of material used, types of customers, and the like. The group of products assigned to an industry is said to be "primary" to that industry. Accordingly, an establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. In a few instances, however, the industry classification of an establishment is determined not only by the products it makes but also by the processes employed in making those products.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics (employment, inventories, value added by manufacture, etc.) shown for an industry, therefore, reflect not only the primary activities of the establishments in that industry but also their activities of a secondary nature. The "primary product specialization" ratio which shows the extent to which plants classified in an industry tend to "specialize" in making products regarded as primary to the industry appears for each industry in the final industry bulletin which is described in Section 1 above.

5. The Census Report Forms

Although only one report was required from each establishment in the 1954 Census of Manufactures, the diversity of manufacturing activities made it necessary to use some 200 different report forms to canvass the approximately 460 manufacturing industries. In order to obtain efficiently the data essential to the census in a manner consistent with considerations of cost and reportability by the respondent, it was decided to use "standard" forms, requiring full census detail, only for those manufacturing plants above a given size in terms of number of employees (generally six or more employees). For the numerous smaller establishments, typically having less detailed records and representing a very minor portion of manufacturing output and employment, data requirements were limited to a relatively few key items on a general "short" form. In the case of a few industries where such small plants typify the industry (thus accounting for a substantial portion of its total in their aggregate), modified versions of short forms were used.

It was possible in this census, using the administrative records of the Bureau of Old-Age and Survivors Insurance in conjunction with existing Census records, to determine correctly, in most cases, which manufacturing establishments were to receive each type of report form before the schedules were placed in the mail.

(a) Standard Forms.--Each standard form called for virtually the same general plant items--employment, payrolls, man-hours, summary of materials costs, detailed fuels and electric energy costs, horsepower of installed equipment, water usage, inventories, and capital expenditures. However, the forms differed in that detailed inquiries on the quantity and value of individual products shipped and individual materials consumed as well as miscellaneous inquiries such as type of operation, equipment, and class of customer were adapted to the individual industries or industry groups. These adaptations in product and material inquiries resulted in 192 different report forms for the approximately 460 manufacturing industries.

(b) General Short Form.--This form, designed for independent establishments with less than six paid employees, was an abbreviated version of the standard form, requesting limited general and product information typically available from the records of smaller manufacturers. For example, only total employment and payroll figures were requested, without detail by functional class of employees (i.e., production workers, force-account construction workers, and all other employees); production-worker man-hour figures were not required. Instead of detailed information on individual products shipped, the short form requested the respondent to indicate his value

of shipments in terms of product classes, a reference list for which was enclosed to provide consistency in reporting.

(c) Modified Short Forms.--In manufacturing as a whole and in most industries, very small establishments accounted for only a minor part of employment or production. However, for a few industries, smaller plants constituted a significantly large proportion of the total. For these industries, modified short forms were used, with the same items for the general section of the report (i.e., employment, inventories, etc.) as appeared on the general short form. In the materials and product sections of these forms, however, greater detail was required, approaching the materials and product sections of the "standard" form counterparts for these industries. The industries covered in this manner were: logging and sawmills, concrete products, dairy products, and several printing and publishing industries.

6. The Canvass

In the 1954 Census the report forms were distributed and returned by mail. Personal or telephone contact was made only when the manufacturer failed to respond to the initial request or to followup letters. All forms for larger establishments (in general, those with 6 or more employees) were mailed and the followup was controlled from Washington. Questionnaires for smaller establishments were mailed and controlled in the 72 Census Bureau field offices.

7. Confidentiality of Data for Individual Companies

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In the 1954 Census, as in 1947, preference has been given to geographic regions and divisions over individual States in applying the disclosure rules; similarly, States take precedence over standard metropolitan areas, while such areas are given preference over counties, and counties over cities. Major industry group (2-digit) totals are given preference over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries.

Such order-of-precedence was used because (1) it was considered preferable to show regional data for an industry, even at the cost of withholding data for another (usually the least important) State in a region, rather than to show all publishable data for the individual States and group the disclosure States throughout the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) by giving preference to industry group statistics over individual industries within each State, the extent to which individual States can be compared within the S.I.C. industry classification framework is greatly increased.

8. Individual Materials Consumed

In addition to the total cost of materials, fuels, etc., which every establishment was required to report, quantity and cost information was collected on the use of 433 specific materials. Consumption information was also collected for an additional 762 items as part of the product sections of the report forms. The latter group typically consisted of items which were produced and also consumed by the producing establishments or by other establishments in the same industry. For example, many chemical plants produced a basic chemical and then used it in further processes. Also, in the steel industry, data on receipts and consumption of mill shapes were obtained as part of the inquiry calling for the production and shipments of these shapes.

Data on the materials consumed in an industry are usually shown in the report for that industry. In addition, for certain materials, consumption by all industries and, frequently, by States is shown in Volume 1, Summary Statistics. The data on materials consumed relate generally to the quantity and cost of materials purchased from other companies or obtained from other plants of the same company. However, for selected materials which are also importantly produced for use within the same establishment, information was requested on such captive production in quantity terms only.

Some undercoverage exists in the statistics for most individual materials. This undercoverage results from the fact that:

(1) Individual materials consumption information was obtained only from establishments using one of the Census of Manufactures standard forms. For the most part, therefore, plants with fewer than six employees are not represented in the statistics. A rough indication of the effect of the use of short forms on the materials covered can be derived from an analysis of the size of establishment tables which appear in the industry reports of the Industry Volume and a separate chapter of the Summary Volume.

(2) Establishments consuming less than a specified amount of a material were not requested to report consumption of the material separately. For the majority of individual materials, the minimum amount was \$5,000.

The use of such cut-offs, as well as short forms, is not believed to have had a significant effect on the totals for most materials. However, for industries where a sizeable proportion of the activity is accounted for by small establishments or where a specified material is used in relatively small quantities, the above limitations may be of some consequence.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

This report summarizes the 1954 Census of Manufactures statistics on the consumption of copper and copper-base alloy mill shapes and forms. Data on the consumption of all copper mill products are shown in table 1 by industries and in table 2 by States. Additional detailed statistics are given in tables 3 and 4 for selected shapes and forms. The consumption data in table 3 are shown by industries within States and in table 4 by State economic areas in selected States. Table 4 also gives the total number of establishments consuming the selected shapes by States and State economic areas, as well as the number consuming over \$50,000 of these materials.

The State economic areas are State subdivisions which were used to prepare the special geographic tabulations of the 1954 Census data contained in table 4. These areas are relatively homogeneous subdivisions of States and consist of single counties or groups of counties which have similar economic and social characteristics. These areas were developed primarily for the 1950 Censuses of Agriculture, Population, and Housing. Within a State, metropolitan economic areas are identified by letters and non-metropolitan areas by numbers. A description of these areas and a list of the counties included in each are given in the Appendix to this report.

The data on tables 1 and 2 are subdivided by type of shape as bare wire, insulated wire and cable, and all other mill shapes and forms. The "all other" category includes rod, bar, plate, sheet, strip, pipe, and tube. Although this category was not defined on the 1954 Census schedules, the general familiarity of users with the term insured a high degree of uniformity in the reported data. Bare wire and insulated wire and cable also were listed separately on the Census schedules and thereby excluded from the residual category. The data contained in tables 3 and 4 pertain only to the miscellaneous shapes and forms. Statistics for bare wire and insulated wire and cable are excluded from these tables.

The figures included in table 1 also are published in Volume I, Summary Statistics, and in Volume II, Industry Statistics, of the 1954 Census of Manufactures; those shown in table 2 are included in the Summary Volume. The detailed statistics contained in tables 3 and 4 for "all other shapes and

forms" were prepared for the Copper and Brass Research Association which defrayed the tabulating cost. These figures do not appear elsewhere in the reports of the 1954 Census of Manufactures. No comparable detail for bare wire and insulated wire and cable were compiled.

The data contained in tables 1 through 4 represent substantially complete coverage of the consumption of each specified mill product in the metal fabricating industries. These industries include establishments which are engaged primarily in the manufacture of products beyond the metal mill or foundry level, such as ordnance, fabricated metal products, machinery and transportation equipment. The metal fabricating industries do not include nonferrous metal mills which are classified in Major Group 33, Primary Metal Industries, or nonmanufacturing activities, such as construction.

In the 1954 Census, data on the consumption of copper mill products were collected from all metal fabricating establishments which consumed significant amounts of these metals. Small consumers were not required to report consumption of individual materials. In addition separate data were not collected on a specific material if the delivered cost was less than \$5,000. The undercoverage of consumption resulting from these minimum reporting requirements is considered to be negligible at a national level. However, the effect to these omissions on the more detailed data contained in table 3 for industries within States and in table 4 for State economic areas may be relatively more significant. For this reason data are shown only for industries within States and State economic areas with consumption in excess of \$50,000.

For a few of the metal fabricating industries such as 3594, Industrial Patterns and Molds, and 3599, Machine Shops, the data reported on materials consumed were incomplete. These partial statistics for such industries are excluded from the detailed industry data contained in tables 1 and 3. However, they are included in the totals for the metal fabricating industries in table 1 in the United States and individual State totals in tables 2, 3, and 4 and in the geographic detail in table 4. The lack of complete data for these industries is considered to have a very minor effect on the coverage of copper consumption in the metal fabricating industries.

This report is a combination of the data tabulated on consumption of copper and copper-base alloy mill shapes and forms for the 1954 Census of Manufactures (published in Chapter X, Volume I, Summary Statistics) and a special tabulation (tables 3 and 4) compiled at the request of the Copper and Brass Research Association. Mrs. Alice K. Cullen was responsible for the preparation of this report in the Metals and Metal Products Branch, Industry Division, under the supervision of Mr. Clarence H. Olsen, Chief of the Branch.

Table 1.--CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS, BY INDUSTRIES: 1954

Code	Consuming industry	Bare wire (335111)		Insulated wire and cable (363111)		All other mill shapes and forms (335119)	
		Quantity (1,000 pounds)	Delivered cost (\$1,000)	Quantity (1,000 pounds metal content)	Delivered cost (\$1,000)	Quantity (1,000 pounds)	Delivered cost (\$1,000)
	Metal fabricating industries, total ¹	² 518,900	² 231,361	367,860	229,495	1,380,708	655,934
19	Ordinance and accessories.....	(³)	(³)	(³)	(³)	³ 157,756	³ 74,622
34	Fabricated metal products.....	62,495	30,383	10,098	9,207	320,716	148,154
3421	Cutlery.....	(³)	(³)	(³)	(³)	³ 3,730	³ 1,813
3423	Hand tools, n.e.c.....	(³)	(³)	(³)	(³)	³ 1,481	³ 789
3429	Hardware, n.e.c.....	1,614	765	100	99	51,192	23,603
3431	Plumbing fixtures and fittings.....	(³)	(³)	(³)	(³)	³ 72,759	³ 31,687
3439	Heating and cooking equipment, n.e.c.....	494	304	341	267	14,081	8,114
3441	Structural and ornamental work.....	766	356	(³)	(³)	³ 1,949	³ 1,272
3442	Metal doors, sash, and trim.....	228	114	(³)	(³)	³ 1,266	³ 680
3443	Boiler shop products.....	(³)	(³)	(³)	(³)	³ 3,792	³ 2,279
3444	Sheet-metal work.....	1,187	612	(³)	(³)	³ 6,546	³ 3,208
3461	Vitreous-enamelled products.....	(³)	(³)	(³)	(³)	³ 393	³ 210
3463	Metal stampings.....	5,349	2,586	527	257	58,291	28,212
3471	Lighting fixtures.....	446	226	8,841	8,425	15,253	7,951
3481	Nails and spikes.....	(³)	(³)	...	...	³ 1,564	³ 757
3489	Wirework, n.e.c.....	12,843	6,683	232	117	7,040	3,784
3494	Bolts, nuts, washers, and rivets.....	26,082	12,531	57	42	27,840	12,809
3495	Screw machine products.....	13,486	6,206	(³)	(³)	³ 53,539	³ 20,986
35	Machinery, except electrical.....	13,402	7,155	18,760	14,006	⁴ 288,844	149,655
3511	Steam engines and turbines.....	(³)	(³)	(³)	(³)	³ 4,568	³ 2,577
3519	Internal combustion engines.....	...	...	1,079	984	10,547	5,273
3521	Tractors.....	...	...	285	267	2,781	1,367
3522	Farm machinery (except tractors).....	(NA)	(³)	(NA)	(³)	(NA)	³ 2,641
3531	Construction and mining machinery.....	(NA)	(³)	(NA)	(³)	(NA)	³ 2,181
3532	Oil-field machinery and tools.....	(NA)	(³)	(NA)	(³)	(NA)	³ 1,265
3541	Machine tools.....	(³)	(³)	(³)	(³)	³ 2,668	³ 1,605
3542	Metalworking machinery.....	(³)	(³)	(³)	(³)	³ 7,879	³ 4,728
3544	Special dies and tools.....	(³)	(³)	(³)	(³)	³ 3,286	³ 1,756
3545	Metalworking machinery attachments.....	(³)	(³)	(³)	(³)	³ 932	³ 597
3551	Food-products machinery.....	(³)	(³)	(³)	(³)	³ 2,783	³ 1,479
3553	Woodworking machinery.....	(³)	(³)	(³)	(³)	³ 1,599	³ 890
3554	Paper-industries machinery.....	(³)	(³)	(³)	(³)	³ 1,706	³ 1,042
3555	Printing-trades machinery.....	(NA)	(³)	(NA)	(³)	(NA)	³ 1,610
3559	Special-industry machinery, n.e.c.....	(³)	(³)	250	266	³ 4,860	³ 3,422
3561	Pumps and compressors.....	1,025	439	1,796	1,222	9,818	5,333
3562	Elevators and escalators.....	(³)	(³)	2,048	1,986	³ 1,473	³ 1,115
3563	Conveyors.....	654	318	1,040	953	821	548
3564	Blowers and fans.....	1,217	657	519	341	2,300	1,453
3565	Industrial trucks and tractors.....	(³)	(³)	552	349	³ 460	³ 292
3566	Power-transmission equipment.....	(³)	(³)	(³)	(³)	³ 8,471	³ 4,359
3569	General industrial machinery, n.e.c.....	2,070	1,287	1,866	1,486	19,813	13,438
3581	Domestic laundry equipment.....	(³)	(³)	950	693	³ 1,488	³ 720
3582	Laundry and dry-cleaning machinery.....	...	...	(³)	(³)	³ 922	³ 489
3583	Sewing machines.....	(³)	(³)	(³)	(³)	³ 96	³ 241
3584	Vacuum cleaners.....	509	260	1,208	1,237	810	565
3585	Refrigeration machinery.....	6,621	3,626	6,094	3,535	69,396	45,476
3586	Measuring and dispensing pumps.....	(³)	(³)	(³)	(³)	³ 2,601	³ 1,170
3589	Service and household machines, n.e.c.....	(³)	(³)	629	378	³ 2,969	³ 1,667
3591	Valves and fittings, except plumbing.....	1,306	568	444	309	112,565	39,738
3593	Ball and roller bearings.....	(³)	(³)	(³)	(³)	³ 1,186	³ 618
36	Electrical machinery.....	371,068	160,539	289,976	169,051	273,924	132,923
3611	Wiring devices and supplies.....	7,500	3,489	8,510	6,271	37,859	18,696
3613	Electrical measuring instruments.....	(³)	(³)	⁵ 5,834	⁵ 3,413	5,864	3,150
3614	Motors and generators.....	25,357	12,919	72,591	40,824	76,405	31,430
3615	Transformers.....	43,112	20,789	59,413	35,593	10,676	5,614
3616	Electrical control apparatus.....	5,095	3,052	6,277	4,479	52,783	26,612
3617	Electrical welding apparatus.....	2,518	1,679	3,781	2,398	3,484	2,150
3619	Electric industrial apparatus, n.e.c.....	2,715	1,264	4,792	3,531	1,765	1,100
3621	Electrical appliances.....	3,574	1,958	5,040	4,346	14,604	7,191
3631	Insulated wire and cable.....	249,720	98,376	(NA)	(NA)	9,332	5,577
3641	Engine electrical equipment.....	7,749	3,587	75,280	34,493	16,675	7,981
3661	Radios and related products.....	19,264	10,492	37,827	22,548	25,537	14,646
3664	Telephone and telegraph equipment.....	4,278	2,816	9,758	10,085	17,971	8,166
3669	Communication equipment, n.e.c.....	186	118	873	1,070	969	610
37	Transportation equipment.....	20,749	10,507	30,543	28,341	217,019	104,178
3713	Truck and bus bodies.....	(³)	(³)	209	142	³ 396	³ 210
3715	Truck trailers.....	(³)	(³)	201	155	³ 1,810	³ 1,011
3716	Automobile trailers.....	(³)	(³)	(³)	(³)	³ 678	³ 414

See footnotes at end of table.

Table 1.--CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS, BY INDUSTRIES: 1954--Continued

Code	Consuming industry	Bare wire (335111)		Insulated wire and cable (363111)		All other mill shapes and forms (335119)	
		Quantity (1,000 pounds)	Delivered cost (\$1,000)	Quantity (1,000 pounds metal content)	Delivered cost (\$1,000)	Quantity (1,000 pounds)	Delivered cost (\$1,000)
37	Transportation equipment--Continued						
3717	Motor vehicles and parts.....	13,344	6,730	8,990	4,811	179,905	82,538
3721	Aircraft.....	1,241	915	5,366	7,672	1,514	1,047
3722	Aircraft engines.....	898	441	728	678	1,148	605
3729	Aircraft equipment, n.e.c.....	708	473	2,281	1,986	10,368	6,472
3731	Ship building and repairing.....	(3)	(3)	8,611	9,901	³ 4,782	³ 3,116
3732	Boat building and repairing.....	(3)	(3)	(3)	(3)	³ 1,119	³ 929
3741	Locomotives and parts.....	4,558	1,948	3,246	2,317	11,237	6,403
3742	Railroad and street cars.....	(3)	(3)	911	679	³ 4,062	³ 1,433
38	Instruments and related products.....	4,155	2,102	1,649	1,435	34,053	17,915
3811	Scientific instruments.....	642	305	793	692	1,393	883
3821	Mechanical measuring instruments.....	3,513	1,797	856	743	32,660	17,032
39	Miscellaneous manufactures.....	19,218	9,412	(NA)	(NA)	56,863	26,577
3914	Silverware and plated ware.....	...	...	(NA)	(NA)	28,167	13,946
3964	Needles, pins, and fasteners.....	19,218	9,412	(NA)	(NA)	28,696	12,631

NA Not available.

¹The metal fabricating industries include establishments whose primary activity is the manufacture of products fabricated beyond the metal mill or foundry level. In addition to the mill shapes and forms consumed in these industries a total of 8,728 thousand pounds of copper and copper-base alloy wire and 31,794 thousand pounds of copper and copper-base alloy rolled, drawn, and extruded mill products, other than wire and cable, was produced and consumed in the manufacture of fabricated products by establishments classified in Major Group 33, "Primary Metal Industries." The totals shown for the consumption of shapes and forms by the metal fabricating industries differ from the sum of the detail for the individual industries because they include data for establishments classified in several industries for which complete consumption data are not available. The totals also incorporate slight refinements which are not included in the figures at an industry level. For example the totals for two-digit groups of industries and for all the metal fabricating industries include estimates of the quantity of materials consumed in industries for which the cost of the materials is published but the quantity is not available. In addition the totals for the "metal fabricating industries" represent the actual consumption of each shape and form while the data for the individual industries and two-digit groups include combinations of data for various shapes and forms which have been made to avoid disclosing operations of individual companies.

²The totals shown in this table differ from those in the State table (table 2) because they include data for establishments classified in Industry 3631, "Insulated Wire and Cable." As both bare wire and insulated wire and cable are classified as mill shapes and forms, the industry totals include duplication to the extent that bare wire is consumed by Industry 3631 establishments in the manufacture of insulated wire and cable which in turn is used in other metal fabricating industries. To avoid counting both the insulated wire and cable and the bare wire from which it is produced, the data for Industry 3631 are excluded from the totals shown by States.

³Combined with all other copper mill shapes and forms.

⁴Includes estimates of the quantity of materials consumed in industries for which the cost is shown but the quantity is not available.

⁵Combined with insulated wire and cable.

1954 CENSUS OF MANUFACTURES

Table 2.--CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS, BY DIVISIONS AND STATES: 1954

Division and State ¹	Bare wire (335111)		Insulated wire and cable (363111)		All other mill shapes and forms (335119)	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Quantity (1,000 pounds metal content)	Delivered cost (\$1,000)	Quantity (1,000 pounds)	Delivered cost (\$1,000)
United States, total.....	2,269,180	2,132,985	367,860	229,495	1,380,708	655,934
New England.....	53,793	25,848	33,507	21,915	221,198	104,075
Maine.....	...	...	(D)	(D)	1,029	599
New Hampshire.....	683	301	862	594	4,264	2,083
Vermont.....	...	...	(D)	(D)	1,588	755
Massachusetts.....	21,037	10,619	23,534	15,601	40,053	20,850
Rhode Island.....	10,455	4,513	1,269	800	9,243	4,344
Connecticut.....	21,618	10,415	6,778	4,172	165,021	75,444
Middle Atlantic.....	72,066	34,286	95,219	64,162	411,392	192,876
New York.....	23,468	11,723	31,747	21,677	280,740	125,555
New Jersey.....	9,828	5,055	18,763	13,678	46,285	24,464
Pennsylvania.....	38,770	17,508	44,709	28,807	84,367	42,857
East North Central.....	113,108	57,701	181,676	105,551	488,290	234,253
Ohio.....	39,851	20,670	46,347	27,127	101,262	53,213
Indiana.....	11,776	6,626	70,238	32,935	76,976	37,826
Illinois.....	38,240	18,047	37,689	27,054	122,904	57,774
Michigan.....	16,692	9,058	17,335	11,659	134,359	58,970
Wisconsin.....	6,549	3,300	10,067	6,776	52,789	26,470
West North Central.....	10,080	5,737	23,846	15,832	141,319	68,122
Minnesota.....	2,364	1,492	2,637	1,569	54,091	25,821
Iowa.....	1,049	560	663	531	3,638	1,836
Missouri.....	4,854	2,610	18,574	11,811	78,093	36,999
North Dakota.....	...	...	...	...	...	...
South Dakota.....	...	...	...	...	(D)	(D)
Nebraska.....	786	464	1,160	1,236	(D)	(D)
Kansas.....	1,027	611	812	685	4,304	2,821
South Atlantic.....	4,152	1,903	9,666	6,395	23,783	10,639
Delaware.....	(D)	(D)	121	103	2,481	968
Maryland.....	2,427	1,055	2,604	1,803	9,583	4,218
District of Columbia.....	....	...	(D)	(D)	(D)	(D)
Virginia.....	(D)	(D)	853	991	2,589	1,304
West Virginia.....	(D)	(D)	2,363	1,302	3,242	1,292
North Carolina.....	280	158	548	293	1,646	872
South Carolina.....	...	...	(D)	(D)	(D)	(D)
Georgia.....	1,210	578	2,489	1,439	3,228	1,487
Florida.....	(D)	(D)	495	330	905	441
East South Central.....	1,553	877	2,350	1,690	17,972	8,597
Kentucky.....	675	360	655	621	9,395	4,602
Tennessee.....	(D)	(D)	318	224	6,950	3,177
Alabama.....	242	109	109	82	1,242	599
Mississippi.....	(D)	(D)	1,268	763	385	219
West South Central.....	1,152	582	4,634	2,947	15,154	7,479
Arkansas.....	359	173	1,546	1,009	207	101
Louisiana.....	...	...	55	42	522	331
Oklahoma.....	47	23	1,555	990	2,625	1,320
Texas.....	746	386	1,478	906	11,800	5,727
Mountain.....	1,461	602	623	436	2,961	1,305
Montana.....	(D)	(D)	...	...	...	...
Idaho.....	...	...	...	...	(D)	(D)
Wyoming.....	(D)	(D)	...	...	(D)	(D)
Colorado.....	1,363	557	562	392	2,511	1,049
New Mexico.....	...	...	(D)	(D)	(D)	(D)
Arizona.....	67	33	(D)	(D)	258	156
Utah.....	(D)	(D)	...	...	(D)	(D)
Nevada.....	...	...	...	...	...	...
Pacific.....	11,815	5,449	16,339	10,567	58,639	28,588
Washington.....	(D)	(D)	1,734	1,197	1,920	1,039
Oregon.....	(D)	486	86	249	735	379
California.....	11,502	5,300	14,119	9,121	55,984	27,170

D Withheld to avoid disclosing operations of individual companies.

¹The data shown in this table represent the actual consumption of each type of material. The combinations of data for two or more materials which were made in table 1 for individual industries and 2-digit industry groups are excluded from the State and division figures.

²These figures differ from the industry totals given in table 1 because data for establishments classified in Industry 3631, "Insulated Wire and Cable," are excluded from the State figures to avoid duplication of data by counting both the insulated wire and cable produced by these plants and the bare wire consumed in the manufacture of insulated wire and cable.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

303-5

Table 3.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS, BY INDUSTRIES WITHIN STATES: 1954

Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)		Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)	
		Quantity (1,000 pounds)	Delivered cost (\$1,000)			Quantity (1,000 pounds)	Delivered cost (\$1,000)
	United States, total.....	1,380,708	655,934		Middle Atlantic--Continued		
	New England, total.....	221,198	104,075	3429	New Jersey.....	46,285	24,464
	Maine.....	1,029	599	3439	Hardware, n.e.c.....	1,256	568
	New Hampshire.....	4,264	2,083	3463	Heating and cooking equipment, n.e.c.....	3,728	2,153
	Vermont.....	1,588	755	3471	Metal stampings.....	2,649	1,257
	Massachusetts.....	40,053	20,850	3471	Lighting fixtures.....	2,719	1,370
3439	Heating and cooking equipment, n.e.c.....	685	409	3495	Screw machine products.....	1,127	455
3444	Sheet-metal work.....	519	265	3559	Special-industry machinery, n.e.c....	407	218
3463	Metal stampings.....	1,498	734	3569	General industrial machinery, n.e.c....	1,204	658
3471	Lighting fixtures.....	554	271	3585	Refrigeration machinery.....	4,051	2,840
3489	Wirework, n.e.c.....	1,486	988	3591	Valves and fittings, except plumbing.....	380	195
3494	Bolts, nuts, washers, and rivets.....	2,417	1,417	3611	Wiring devices and supplies.....	2,677	1,287
3495	Screw machine products.....	3,203	1,226	3614	Motors and generators.....	1,659	1,225
3554	Paper-industries machinery.....	513	275	3616	Electrical control apparatus.....	1,625	828
3566	Power-transmission equipment.....	293	141	3631	Insulated wire and cable.....	2,418	1,349
3591	Valves and fittings, except plumbing.....	2,107	916	3641	Engine electrical equipment.....	528	278
3616	Electrical control apparatus.....	495	323	3661	Radios and related products.....	1,936	1,136
3661	Engine electrical equipment.....	317	188	3717	Motor vehicles and parts.....	154	81
3661	Radios and related products.....	1,340	533	3821	Mechanical measuring instruments.....	3,192	1,272
3821	Mechanical measuring instruments.....	1,446	681				
3914	Silverware and plated ware.....	1,916	1,030		Pennsylvania.....	84,367	42,857
	Rhode Island.....	9,243	4,344	1900	Ordinance and accessories.....	2,313	1,283
3495	Screw machine products.....	538	251	3429	Hardware, n.e.c.....	1,407	681
3611	Wiring devices and supplies.....	376	180	3439	Heating and cooking equipment, n.e.c.....	2,081	1,283
	Connecticut.....	165,021	75,444	3443	Boiler shop products.....	466	246
3429	Hardware, n.e.c.....	10,187	4,635	3444	Sheet-metal work.....	278	133
3463	Metal stampings.....	18,809	8,746	3463	Metal stampings.....	1,247	652
3471	Lighting fixtures.....	296	150	3471	Lighting fixtures.....	1,010	555
3489	Wirework, n.e.c.....	2,431	1,219	3495	Screw machine products.....	677	284
3495	Screw machine products.....	6,249	2,402	3531	Construction and mining machinery....	125	75
3541	Machine tools.....	89	52	3542	Metalworking machinery.....	136	70
3561	Pumps and compressors.....	144	74	3559	Special-industry machinery, n.e.c....	1,545	1,135
3611	Wiring devices and supplies.....	6,083	2,929	3561	Pumps and compressors.....	330	200
3614	Motors and generators.....	417	226	3569	General industrial machinery, n.e.c....	1,374	953
	Middle Atlantic, total.....	411,392	192,876	3589	Service and household machines, n.e.c.....	190	112
	New York.....	280,740	125,555	3591	Valves and fittings, except plumbing.....	1,802	899
1900	Ordinance and accessories.....	3,259	1,889	3616	Electrical control apparatus.....	15,093	7,415
3421	Cutlery.....	482	237	3621	Electrical appliances.....	304	177
3429	Hardware, n.e.c.....	2,962	1,406	3641	Engine electrical equipment.....	894	352
3431	Plumbing fixtures and fittings.....	5,861	3,027	3661	Radios and related products.....	1,416	922
3441	Structural and ornamental work.....	1,173	773	3821	Mechanical measuring instruments.....	6,158	2,955
3442	Metal doors, sash, and trim.....	320	185				
3443	Boiler shop products.....	202	121		East North Central, total.....	488,290	234,253
3444	Sheet-metal work.....	793	391	3429	Ohio.....	101,262	53,213
3463	Metal stampings.....	12,308	5,712	3431	Hardware, n.e.c.....	2,513	1,006
3471	Lighting fixtures.....	2,917	1,445	3439	Plumbing fixtures and fittings.....	3,112	1,216
3495	Screw machine products.....	8,649	3,560	3441	Heating and cooking equipment, n.e.c.....	1,029	573
3522	Farm machinery (except tractors).....	450	255	3441	Structural and ornamental work.....	155	95
3544	Special dies and tools.....	576	266	3444	Sheet-metal work.....	877	407
3551	Food-products machinery.....	109	65	3463	Metal stampings.....	6,643	3,290
3554	Paper-industries machinery.....	97	55	3471	Lighting fixtures.....	1,238	653
3559	Special-industry machinery, n.e.c....	100	58	3489	Wirework, n.e.c.....	307	156
3561	Pumps and compressors.....	698	320	3494	Bolts, nuts, washers, and rivets.....	4,539	1,800
3569	General industrial machinery, n.e.c....	5,017	3,139	3495	Screw machine products.....	7,496	3,178
3585	Refrigeration machinery.....	12,241	6,651	3522	Farm machinery (except tractors).....	170	68
3591	Valves and fittings, except plumbing.....	1,177	470	3541	Machine tools.....	401	285
3611	Wiring devices and supplies.....	8,264	4,354	3542	Metalworking machinery.....	986	450
3616	Electrical control apparatus.....	4,123	2,104	3551	Food-products machinery.....	90	62
3619	Electrical industrial apparatus, n.e.c.....	170	85	3561	Pumps and compressors.....	1,686	905
3621	Electrical appliances.....	600	315	3565	Industrial trucks and tractors.....	206	124
3631	Insulated wire and cable.....	3,373	1,931	3584	Vacuum cleaners.....	356	181
3641	Engine electrical equipment.....	1,021	523	3585	Refrigeration machinery.....	11,113	7,517
3661	Radios and related products.....	3,009	1,576	3591	Valves and fittings, except plumbing.....	6,049	2,812
3669	Communication equipment, n.e.c.....	879	448	3611	Wiring devices and supplies.....	4,345	2,234
3717	Motor vehicles and parts.....	114,716	49,356	3613	Electrical measuring instruments.....	237	125
3721	Aircraft.....	93	53	3614	Motors and generators.....	4,926	2,763
3729	Aircraft equipment, n.e.c.....	498	243	3616	Electrical control apparatus.....	3,596	1,823
3731	Ship building and repairing.....	537	311	3617	Electrical welding apparatus.....	1,244	659
3821	Mechanical measuring instruments.....	2,375	1,145	3619	Electrical industrial apparatus, n.e.c.....	147	95
3914	Silverware and plated ware.....	10,342	4,984	3621	Electrical appliances.....	1,633	711
3964	Needles, pins, and fasteners.....	2,678	1,324	3661	Radios and related products.....	3,236	1,601
				3729	Aircraft equipment, n.e.c.....	1,291	643
					Indiana.....	76,976	37,826
				3429	Hardware, n.e.c.....	1,684	880
				3431	Plumbing fixtures and fittings.....	2,951	1,533

See footnotes at end of table.

Table 3.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS, BY INDUSTRIES WITHIN STATES: 1954--Continued

Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)		Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)	
		Quantity (1,000 pounds)	Delivered cost (\$1,000)			Quantity (1,000 pounds)	Delivered cost (\$1,000)
	East North Central—Continued				East North Central—Continued		
	Indiana—Continued				Wisconsin—Continued		
3463	Metal stampings.....	419	192	3589	Service and household machines, n.e.c.....	90	56
3495	Screw machine products.....	3,374	1,458	3616	Electrical control apparatus.....	5,048	2,549
3522	Farm machinery (except tractors).....	150	63		West North Central, total.....	141,319	68,122
3561	Pumps and compressors.....	288	140		Minnesota.....	54,091	25,821
3566	Power-transmission equipment.....	285	140		Metal stampings.....	153	80
3585	Refrigeration machinery.....	3,061	2,421	3463	Refrigeration machinery.....	4,006	2,394
3591	Valves and fittings, except plumbing.....	4,323	2,627	3585	Iowa.....	3,638	1,836
3661	Radios and related products.....	6,762	3,755		Domestic laundry equipment.....	511	304
3716	Automobile trailers.....	120	59	3581	Valves and fittings, except plumbing.....	1,410	573
3722	Aircraft engines.....	154	79	3591	Missouri.....	78,093	36,999
	Illinois.....	122,904	57,774		Metal stampings.....	256	121
1900	Ordnance and accessories.....	2,726	1,346	3463	Screw machine products.....	1,246	464
3429	Hardware, n.e.c.....	5,371	2,521	3495	Refrigeration machinery.....	2,332	1,612
3431	Plumbing fixtures and fittings.....	2,607	989	3585	Wiring devices and supplies.....	1,373	833
3439	Heating and cooking equipment, n.e.c.....	868	500	3611	Motors and generators.....	650	340
3463	Metal stampings.....	7,685	3,759	3616	Electrical control apparatus.....	4,631	1,802
3471	Lighting fixtures.....	1,397	650	3621	Electrical appliances.....	119	65
3489	Wirework, n.e.c.....	189	106	3821	Mechanical measuring instruments.....	1,638	853
3494	Bolts, nuts, washers, and rivets.....	5,296	2,505		North Dakota.....	...	...
3495	Screw machine products.....	7,248	2,861		South Dakota.....	(D)	(D)
3522	Farm machinery (except tractors).....	909	342		Nebraska.....	(D)	(D)
3541	Machine tools.....	152	97		Kansas.....	4,304	2,821
3542	Metalworking machinery.....	142	87	3721	Aircraft.....	313	216
3544	Special dies and tools.....	105	55		South Atlantic, total.....	23,783	10,639
3551	Food-products machinery.....	234	124		Delaware.....	2,481	968
3559	Special-industry machinery, n.e.c.....	286	163		Maryland.....	9,583	4,218
3561	Pumps and compressors.....	2,254	1,289	3661	Radios and related products.....	515	271
3566	Power-transmission equipment.....	95	57		District of Columbia.....	(D)	(D)
3585	Refrigeration machinery.....	1,494	940		Virginia.....	2,589	1,304
3591	Valves and fittings, except plumbing.....	23,771	8,533		West Virginia.....	3,242	1,292
3611	Wiring devices and supplies.....	5,732	3,258		North Carolina.....	1,646	872
3614	Motors and generators.....	223	125		South Carolina.....	(D)	(D)
3616	Electrical control apparatus.....	5,011	2,668		Georgia.....	3,228	1,487
3641	Engine electrical equipment.....	188	100	3616	Electrical control apparatus.....	559	311
3661	Radios and related products.....	5,197	2,896		Florida.....	905	441
3664	Telephone and telegraph equipment.....	6,874	3,037		East South Central, total.....	17,972	8,597
3717	Motor vehicles and parts.....	2,404	1,164		Kentucky.....	9,395	4,602
3729	Aircraft equipment, n.e.c.....	882	497		Tennessee.....	6,950	3,177
3811	Scientific instruments.....	140	65		Alabama.....	1,242	599
3821	Mechanical measuring instruments.....	2,580	1,222		Mississippi.....	385	219
	Michigan.....	134,359	58,970		West South Central, total.....	15,154	7,479
1900	Ordnance and accessories.....	869	450		Arkansas.....	207	101
3429	Hardware, n.e.c.....	5,910	2,808		Louisiana.....	522	331
3431	Plumbing fixtures and fittings.....	7,352	3,163		Oklahoma.....	2,625	1,320
3444	Sheet-metal work.....	136	75	3532	Oil-field machinery and tools.....	718	318
3463	Metal stampings.....	2,088	1,046	3561	Pumps and compressors.....	449	237
3489	Wirework, n.e.c.....	295	190		Texas.....	11,800	5,727
3494	Bolts, nuts, washers, and rivets.....	724	391	3444	Sheet-metal work.....	157	80
3495	Screw machine products.....	5,698	2,210	3532	Oil-field machinery and tools.....	494	299
3522	Farm machinery (except tractors).....	138	68				
3544	Special dies and tools.....	501	272				
3545	Metalworking machinery attachments.....	497	235				
3559	Special-industry machinery, n.e.c.....	474	243				
3561	Pumps and compressors.....	357	193				
3585	Refrigeration machinery.....	6,828	4,579				
3591	Valves and fittings, except plumbing.....	58,565	17,756				
3614	Motors and generators.....	880	466				
3617	Electrical welding apparatus.....	1,378	833				
3621	Electrical appliances.....	254	140				
3717	Motor vehicles and parts.....	19,915	12,247				
3722	Aircraft engines.....	73	52				
	Wisconsin.....	52,789	26,470				
1900	Ordnance and accessories.....	2,471	1,007				
3429	Hardware, n.e.c.....	5,004	1,901				
3431	Plumbing fixtures and fittings.....	3,926	1,711				
3444	Sheet-metal work.....	354	181				
3463	Metal stampings.....	1,721	888				
3495	Screw machine products.....	580	238				
3521	Tractors.....	103	55				
3522	Farm machinery (except tractors).....	270	145				
3531	Construction and mining machinery.....	248	153				
3541	Machine tools.....	93	55				

See footnotes at end of table.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

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Table 3.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS,
BY INDUSTRIES WITHIN STATES: 1954--Continued

Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)		Code	Division, State, and industry	Copper and copper-base alloy mill shapes and forms ¹ (Code 335119)	
		Quantity (1,000 pounds)	Delivered cost (\$1,000)			Quantity (1,000 pounds)	Delivered cost (\$1,000)
	West South Central--Continued				Pacific--Continued		
	Texas--Continued				California.....	55,984	27,170
3561	Pumps and compressors.....	340	168	3429	Hardware, n.e.c.....	9,751	4,455
3569	General industrial machinery, n.e.c..	3,023	1,633	3431	Plumbing fixtures and fittings.....	10,215	4,483
3585	Refrigeration machinery.....	640	431	3439	Heating and cooking equipment, n.e.c.	640	340
3616	Electrical control apparatus.....	356	186	3444	Sheet-metal work.....	244	132
3721	Aircraft.....	131	93	3463	Metal stampings.....	644	298
	Mountain, total.....	2,961	1,305	3471	Lighting fixtures.....	457	236
	Montana.....	...	...	3494	Bolts, nuts, washers and rivets.....	302	152
	Idaho.....	(D)	(D)	3495	Screw machine products.....	1,706	682
	Wyoming.....	(D)	(D)	3532	Oil-field machinery and tools.....	88	54
	Colorado.....	2,511	1,049	3542	Metalworking machinery.....	1,599	930
	New Mexico.....	(D)	(D)	3551	Food-products machinery.....	134	85
	Arizona.....	258	156	3559	Special-industry machinery, n.e.c....	115	80
	Utah.....	(D)	(D)	3561	Pumps and compressors.....	310	222
	Nevada.....	...	...	3585	Refrigeration machinery.....	1,343	828
	Pacific, total.....	58,639	28,588	3591	Valves and fittings, except plumbing.....	4,736	1,800
	Washington.....	1,920	1,039	3611	Wiring devices and supplies.....	553	409
	Oregon.....	735	379	3613	Electrical measuring instruments....	175	100
				3614	Motors and generators.....	178	89
				3616	Electrical control apparatus.....	1,709	915
				3661	Radios and related products.....	861	399
				3717	Motor vehicles and parts.....	5,572	2,679
				3721	Aircraft.....	566	288
				3729	Aircraft equipment, n.e.c.....	813	502
				3731	Ship building and repairing.....	372	212
				3811	Scientific instruments.....	95	67
				3821	Mechanical measuring instruments....	2,796	1,548

D Withheld to avoid disclosing operations of individual companies.

¹Excludes data on the consumption of bare wire and insulated wire and cable.

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
United States, total.....	1,380,708	655,934	4,978	1,396
New England, total.....	221,198	104,075	584	206
Maine.....	1,029	599	7	3
New Hampshire.....	4,264	2,083	30	11
Vermont.....	1,588	755	8	4
Massachusetts.....	40,053	20,850	240	73
State economic areas:				
C (Essex, Middlesex, Norfolk, Suffolk).....	19,675	10,539	142	42
B (Worcester).....	9,833	4,660	37	12
E (Bristol).....	3,796	1,876	21	7
D (Plymouth).....	1,268	600	10	2
2.....			2	...
A (Hampden, Hampshire).....	2,440	1,526	19	7
1.....	3,041	1,649	9	3
Rhode Island.....	9,243	4,344	43	19
Connecticut.....	165,021	75,444	256	96
State economic areas:				
C (Hartford).....	21,716	11,220	63	26
A (Fairfield).....	28,054	13,092	65	21
B (New Haven).....	109,824	48,511	91	38
1.....	3,316	1,552	19	5
2.....	2,111	1,069	18	6
Middle Atlantic, total.....	411,392	192,876	1,304	375
New York.....	280,740	125,555	639	186
State economic areas:				
G (New York City, ³ Nassau, Rockland, Suffolk, Westchester).....	69,089	34,910	424	113
C (Onondaga).....	7,400	3,702	20	8
4.....			7	2
F (Albany, Rensselaer, Schenectady).....			19	6
8.....			5	...
5.....			1	...
6.....	34,790	14,020	3	1
7.....			4	1
9.....			16	5
D (Herkimer, Oneida).....	16,630	7,624	12	5
E (Broome).....	442	184	5	1
A (Erie, Niagara).....	127,587	52,504	54	17
B (Monroe).....	8,555	4,023	34	14
1.....			1	1
2.....	994	596	10	3
3.....	15,253	7,992	24	9
New Jersey.....	46,285	24,464	303	90
State economic areas:				
B (Northeastern New Jersey) ⁴	38,748	20,138	247	73
D (Burlington, Camden, Gloucester).....	2,313	1,187	19	5
A (Warren).....			3	1
C (Mercer).....			15	7
E (Atlantic).....	4,325	2,628	3	...
F (Salem).....			...	...
2.....			3	...
1.....	899	511	13	4
Pennsylvania.....	84,367	42,857	362	99
State economic areas:				
N (Philadelphia area) ⁵	26,314	12,388	161	36
H (Cumberland, Dauphin).....			3	...
5.....	1,085	587	...	...
7.....			6	2
J (York).....			19	5
K (Lancaster).....	9,628	6,045	12	1
L (Berks).....			5	2
M (Lehigh, Northampton).....	3,647	1,904	15	5
6.....	207	124	7	1
C (Lackawanna).....	2,493	1,418	5	4
G (Luzerne).....	339	210	3	1
2.....			4	1
3.....	1,165	630	10	3
D (Pittsburgh area) ⁶	27,642	12,797	54	17
B (Mercer).....	265	131	3	1
1.....	1,775	1,213	20	5
A (Erie).....	8,895	4,914	28	12
F (Blair).....			1	1
E (Cambria, Somerset).....			1	1
4.....	912	496	5	1

See footnotes at end of table.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

303-9

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954--Continued

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
East North Central, total.....	488,290	234,253	1,886	550
Ohio.....	101,262	53,213	506	155
State economic areas:				
E (Cuyahoga, Lake).....	28,414	14,326	183	56
H (Mahoning, Trumbull).....	3,143	1,875	20	8
G (Stark).....	3,750	2,421	15	4
F (Summit).....	475	323	12	2
4.....	8,545	4,204	40	18
5.....	1,315	729	16	4
A (Lucas).....	4,961	2,092	23	7
1.....	1,804	843	10	4
2.....	5,007	2,219	28	7
J (Belmont, Jefferson).....	1,748	766	1	...
6.....			9	4
B (Franklin).....	4,812	2,612	21	6
C (Greene, Montgomery).....	17,789	10,882	26	9
D (Butler).....	308	168	10	1
K (Hamilton).....	15,497	7,300	66	18
L (Lawrence).....			...	...
7.....	3,694	2,453	1	1
8.....			3	1
3.....			22	5
Indiana.....	76,976	37,826	170	59
State economic areas:				
A (Lake).....	1,599	1,371	7	1
1.....	13,060	6,258	26	7
2.....	4,258	2,202	17	8
B (St. Joseph).....			7	2
C (Allen).....	16,511	6,055	14	4
3.....			7	2
D (Marion).....	11,331	5,456	35	12
E (Vanderburgh).....			6	4
F (Clark, Floyd).....	8,394	5,394	2	...
6.....			4	2
7.....			5	1
8.....			2	...
5.....	919	452	9	3
4.....	20,904	10,638	29	13
Illinois.....	122,904	57,774	574	168
State economic areas:				
C (Cook, Du Page, Kane, Lake, Will).....	105,791	49,148	461	137
B (Winnebago).....	2,900	1,539	23	5
2.....	733	441	8	1
5.....			9	4
A (Rock Island).....	4,814	2,246	10	1
D (Peoria, Tazewell).....			4	1
3.....			10	2
1.....	1,801	934	15	4
E (Sangamon).....	1,497	735	3	2
4.....			7	1
F (Madison, St. Clair).....			3	...
7.....			2	1
8.....	1,191	627	1	1
9.....			1	...
10.....			1	1
11.....			1	...
6.....	4,177	2,104	15	7
Michigan.....	134,359	58,970	405	108
State economic areas:				
A (Saginaw).....			8	2
1.....	1,537	849	2	2
3.....			2	...
4.....			4	2
2.....	276	170	7	2
5.....	1,346	629	17	4
F (Macomb, Oakland, Wayne).....	64,061	30,168	218	53
D (Genesee).....			11	3
E (Ingham).....	51,258	18,208	6	...
7.....			23	9
8.....			19	8
B (Kent).....	5,735	3,028	26	6
C (Muskegon).....	405	275	8	1
G (Kalamazoo).....	298	136	7	1
6.....	3,419	1,935	23	8
9.....	6,024	3,572	24	7

See footnotes at end of table.

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954--Continued

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
East North Central--Continued				
Wisconsin.....	52,789	26,470	231	60
State economic areas:				
C (Milwaukee).....	31,090	15,341	108	33
9.....	5,174	2,640	29	7
B (Dane).....	4,584	2,465	4	1
8.....	6,520	2,769	29	6
7.....			40	7
A (Douglas).....			1	...
1.....			1	...
2.....			11	5
3.....	5,421	3,255	...	...
4.....			4	1
5.....			1	...
6.....			3	...
West North Central, total.....	141,319	68,122	257	75
Minnesota.....	54,091	25,821	68	24
State economic areas:				
B (Anoka, Dakota, Hennepin, Ramsey).....	53,458	25,475	56	21
A (St. Louis).....			2	1
1.....			...	...
2.....			...	...
3.....	180	115	1	...
4.....			...	...
5.....			...	...
6.....			4	...
8.....			...	...
7.....	453	231	5	2
Iowa.....	3,638	1,836	38	8
State economic areas:				
D (Scott).....	1,018	549	1	...
6.....			12	1
A (Woodbury).....			3	...
B (Pottawattamie).....			1	...
1.....	149	92	...	...
2.....			3	...
3.....			...	...
4.....			4	...
C (Polk).....	519	259	6	2
5.....	1,952	936	8	5
Missouri.....	78,093	36,999	116	35
State economic areas:				
A (Clay, Jackson).....			24	2
B (St. Louis City, and St. Charles and St. Louis Counties).....			76	30
1.....			...	...
2.....			3	...
3.....			...	...
4.....	78,093	36,999	3	1
5.....			...	...
6.....			7	1
7.....			2	...
8.....			...	...
9.....			1	1
North Dakota.....	...	...	...	...
South Dakota.....	(D)	(D)	1	...
Nebraska.....	(D)	(D)	13	4
Kansas.....	4,304	2,821	21	4
State economic areas:				
B (Johnson, Wyandotte).....			3	...
A (Sedgwick).....			12	4
1.....			...	...
2.....			...	...
3.....	4,304	2,821	3	...
4.....			...	...
5.....			1	...
6.....			2	...
7.....			...	...
South Atlantic, total.....	23,783	10,639	155	37
Delaware.....	2,481	968	12	2

See footnotes at end of table.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

303-11

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954--Continued

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
South Atlantic--Continued				
Maryland.....	9,583	4,218	41	13
State economic areas:				
A (Anne Arundel, Baltimore, Baltimore City).....	6,141	2,843	27	9
B (Montgomery, Prince Georges).....			5	2
1.....	2,586	990	...	...
3.....			...	...
4.....			2	1
2.....	856	385	7	1
District of Columbia.....	(D)	(D)	2	...
Virginia.....	2,589	1,304	19	.4
West Virginia.....	3,242	1,292	14	3
State economic areas:				
A (Brooke, Hancock, Marshall, Ohio).....			3	...
B (Cabell, Wayne).....			1	...
C (Fayette, Kanawha).....			...	...
1.....			1	...
2.....	215	133	...	...
4.....			...	...
5.....			...	...
6.....			3	...
3.....	3,027	1,159	6	3
North Carolina.....	1,646	872	24	6
South Carolina.....	(D)	(D)	3	...
Georgia.....	3,228	1,487	21	8
State economic areas:				
B (Cobb, De Kalb, Fulton).....	2,909	1,301	16	7
A (Walker).....			...	...
C (Chattahoochee, Muscogee).....			...	...
D (Richmond).....			...	...
E (Chatham).....			...	...
1.....			2	...
2.....			...	...
3.....	319	186	1	...
4.....			1	1
5.....			1	...
6.....			...	...
7.....			...	...
8.....			...	...
9.....			...	...
Florida.....	905	441	19	1
East South Central, total.....	17,972	8,597	76	23
Kentucky.....	9,395	4,602	32	11
State economic areas:				
A (Jefferson).....			18	8
B (Campbell, Kenton).....			7	2
C (Boyd).....			...	...
1.....			2	1
2.....			1	...
3.....			...	...
4.....	9,395	4,602	...	...
5.....			...	...
6.....			1	...
7.....			3	...
8.....			...	...
9.....			...	...
Tennessee.....	6,950	3,177	21	9
State economic areas:				
A (Shelby).....	627	332	7	3
1.....	...	...	...	...
2.....	...	...	...	...
3.....	...	...	...	...
B (Davidson).....			4	1
4.....			1	1
5.....			...	...
6.....			...	...
7.....	6,323	2,845	...	...
C (Hamilton).....			3	2
D (Anderson, Blount, Knox).....			2	1
8.....			4	1

See footnotes at end of table.

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954--Continued

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
East South Central--Continued				
Alabama.....	1,242	599	19	2
State economic areas:				
A (Jefferson).....	629	267	8	1
B (Russell).....			...	...
C (Montgomery).....			1	...
1.....			2	...
2.....			...	...
3.....			2	1
4.....	511	275	1	...
5.....			...	...
6.....			...	...
7.....			...	...
8.....			...	...
D (Mobile).....	102	57	5	...
Mississippi.....	385	219	4	1
West South Central, total.....	15,154	7,479	161	33
Arkansas.....	207	101	4	1
Louisiana.....	522	331	14	2
State economic areas:				
B (Jefferson, Orleans, St. Bernard).....	326	208	8	1
A (Caddo).....			2	1
1.....			...	...
2.....			...	...
3.....			...	...
4.....	196	123	1	...
5.....			1	...
6.....			2	...
7.....			...	...
8.....			...	...
Oklahoma.....	2,625	1,320	40	9
State economic areas:				
A (Tulsa).....			26	8
3.....	2,481	1,229	5	1
8.....			...	...
B (Oklahoma).....			7	...
1.....			...	...
2.....			1	...
4.....	144	91	...	...
5.....			...	...
6.....			1	...
7.....			...	...
9.....			...	...
Texas.....	11,800	5,727	103	21
State economic areas:				
G (Harris).....	3,243	1,733	44	5
C (Dallas).....	2,250	1,086	23	7
B (Tarrant).....	372	208	10	2
H (Jefferson).....			4	2
A (El Paso).....			2	...
D (McLennan).....			1	...
E (Travis).....			...	...
F (Bexar).....			5	1
1.....			...	...
2.....			...	...
3.....			...	...
4.....			2	...
5.....	5,935	2,700	1	...
6.....			1	...
7.....			...	...
8.....			4	2
9.....			...	...
10.....			...	...
11.....			...	...
12.....			3	2
13.....			1	...
14.....			1	...
15.....			1	...
Mountain, total.....	2,961	1,305	33	7
Montana.....	...	...	...	...
Idaho.....	(D)	(D)	2	1
Wyoming.....	(D)	(D)	1	...

See footnotes at end of table.

CONSUMPTION OF COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS

303-13

Table 4.--CONSUMPTION OF SELECTED COPPER AND COPPER-BASE ALLOY MILL SHAPES AND FORMS BY METAL FABRICATING ESTABLISHMENTS AND NUMBER OF ESTABLISHMENTS CONSUMING COPPER, BY STATES AND STATE ECONOMIC AREAS: 1954--Continued

Division, State, and State economic area ¹	Copper and copper-base alloy mill shapes and forms ² (Code 335119)		Number of establishments consuming copper mill shapes and forms	
	Quantity (1,000 pounds)	Delivered cost (\$1,000)	Total	Consuming in excess of \$50,000
Mountain--Continued				
Colorado.....	2,511	1,049	17	5
New Mexico.....	(D)	(D)	3	...
Arizona.....	258	156	7	1
Utah.....	(D)	(D)	3	...
Nevada.....	...	...	...	...
Pacific, total.....	58,639	28,588	522	90
Washington.....	1,920	1,039	42	5
State economic areas:				
A (King).....	1,920	1,039	32	4
B (Pierce).....			7	...
C (Clark).....			...	...
D (Spokane).....			2	...
1.....			...	...
2.....			1	1
3.....			...	...
4.....			...	...
5.....			...	...
6.....			...	...
7.....			...	...
Oregon.....	735	379	23	1
California.....	55,984	27,170	457	84
State economic areas:				
A (San Francisco-Oakland area) ⁷	10,137	5,161	91	14
F (Los Angeles, Orange).....	43,320	20,717	335	64
B (Santa Clara).....	862	408	8	2
D (San Joaquin).....	282	149	4	1
G (San Diego).....	146	82	7	...
C (Sacramento).....	1,237	653	...	...
E (Fresno).....			3	1
H (San Bernardino).....			3	1
1.....			...	...
2.....			...	...
3.....			...	...
4.....			1	...
5.....			...	...
6.....			3	...
7.....			...	...
8.....			1	1
9.....			1	...

D Withheld to avoid disclosing operations of individual companies.

¹A description of the State economic areas and a list of the counties included in each area are given in the Appendix to this report. Metropolitan areas are identified below by capital letters and the counties included in each area are shown in parentheses. Non-metropolitan areas are identified by figures.²Excludes data on the consumption of bare wire and insulated wire and cable.³Includes Bronx, Kings, New York, Queens and Richmond counties.⁴Includes Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset and Union counties.⁵Includes Bucks, Chester, Delaware, Montgomery, and Philadelphia counties.⁶Includes Allegheny, Beaver, Washington and Westmoreland counties.⁷Includes Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Solano counties.

Appendix

This appendix provides a list of the counties included in each of the State economic areas for which geographic data on copper consumption are shown in Table 2 of this report.

The State economic areas are relatively homogeneous subdivisions of States and consist of single counties or groups of counties which have similar economic and social characteristics. These areas were primarily developed for the 1950 Censuses of Agriculture, Population, and Housing. Within a State, metropolitan economic areas are identified by letters and nonmetropolitan areas, by numbers.

In this report, the standard metropolitan area was not used as a tabulation area. However, except for New England, data for

most standard metropolitan areas can be derived from these statistics inasmuch as the standard metropolitan area is coextensive with a metropolitan State economic area or is made up of two or more such areas. For example, while no data are shown for the Chicago metropolitan area (Cook, Du Page, Kane, Lake, and Will Counties in Illinois and Lake County, Indiana), they can be derived by combining data for metropolitan area C in Illinois and metropolitan area A in Indiana. However, in New England, standard metropolitan areas are drawn on town lines, whereas State economic areas, as elsewhere, are drawn on county lines. For this reason, data cannot be accumulated from this report for standard metropolitan areas in New England.

ALABAMA	ALABAMA—Con.	CALIFORNIA—Con.	CALIFORNIA—Con.
<u>Metropolitan Area A</u>	<u>Area 5—Con.</u>	<u>Metropolitan Area A—Con.</u>	<u>Area 4—Con.</u>
Jefferson	Chilton	Marin	Glenn
<u>Metropolitan Area B</u>	Elmore	San Francisco	Sutter
Russell	Fayette	San Mateo	Tehama
<u>Metropolitan Area C</u>	Franklin	Solano	Yolo
Montgomery	Lamar	<u>Metropolitan Area B</u>	Yuba
<u>Metropolitan Area D</u>	Macon	Santa Clara	<u>Area 5</u>
Mobile	Marion	<u>Metropolitan Area C</u>	Merced
<u>Area 1</u>	Pickens	Sacramento	Stanislaus
Colbert	Tuscaloosa	<u>Metropolitan Area D</u>	<u>Area 6</u>
Lauderdale	Winston	San Joaquin	Kern
Lawrence	<u>Area 6</u>	<u>Metropolitan Area E</u>	Kings
Limestone	Bullock	Fresno	Madera
Madison	Dallas	<u>Metropolitan Area F</u>	Tulare
Morgan	Greene	Los Angeles	<u>Area 7</u>
<u>Area 2</u>	Hale	Orange	Santa Barbara
Blount	Lowndes	<u>Metropolitan Area G</u>	Ventura
Cullman	Marengo	<u>Metropolitan Area H</u>	<u>Area 8</u>
De Kalb	Perry	San Bernardino	Imperial
Jackson	Sumter	<u>Area 1</u>	Riverside
Marshall	Wilcox	Del Norte	<u>Area 9</u>
<u>Area 3</u>	<u>Area 7</u>	Humbolt	Alpine
Calhoun	Barbour	Lake	Amador
Cherokee	Butler	Mendocino	Calaveras
Etowah	Choctaw	<u>Area 2</u>	El Dorado
St. Clair	Clarke	Napa	Inyo
Shelby	Coffee	Sonoma	Lassen
Talladega	Conecuh	<u>Area 3</u>	Mariposa
Walker	Covington	Monterey	Modoc
<u>Area 4</u>	Crenshaw	San Benito	Mono
Chambers	Dale	San Luis Obispo	Nevada
Clay	Geneva	Santa Cruz	Placer
Cleburne	Henry	<u>Area 4</u>	Plumas
Coosa	Houston	Butte	Shasta
Lee	Monroe	Colusa	Sierra
Randolph	Pike		Siskiyou
Tallapoosa	Washington		Trinity
<u>Area 5</u>	<u>Area 8</u>		Tuolumne
Autauga	Baldwin		
Bibb	Escambia		
	CALIFORNIA		CONNECTICUT
<u>Area 5</u>	<u>Metropolitan Area A</u>	<u>Area 4</u>	<u>Metropolitan Area A</u>
Alameda	Alameda	Butte	Fairfield
Contra Costa	Contra Costa	Colusa	

CONNECTICUT—Con.

GEORGIA—Con.

GEORGIA—Con.

ILLINOIS—Con.

<u>Metropolitan Area B</u>	<u>Area 3—Con.</u>	<u>Area 7—Con.</u>	<u>Metropolitan Area B</u>
New Haven	Haralson	Calhoun	Winnebago
<u>Metropolitan Area C</u>	Heard	Clay	<u>Metropolitan Area C</u>
Hartford	Jackson	Crisp	Cook
<u>Area 1</u>	Madison	Decatur	Du Page
Litchfield	Paulding	Dooly	Kane
<u>Area 2</u>	Stephens	Dougherty	Lake
Middlesex	<u>Area 4</u>	Early	Will
New London	Baldwin	Grady	<u>Metropolitan Area D</u>
Tolland	Butts	Houston	Peoria
Windham	Clarke	Irwin	Tazewell
GEORGIA	Clayton	Lee	<u>Metropolitan Area E</u>
<u>Metropolitan Area A</u>	Columbia	Macon	Sangamon
Walker	Coweta	Miller	<u>Metropolitan Area F</u>
<u>Metropolitan Area B</u>	Elbert	Mitchell	Madison
Cobb	Fayette	Peach	St. Clair
De Kalb	Greene	Pulaski	<u>Area 1</u>
Fulton	Hancock	Quitman	Carroll
<u>Metropolitan Area C</u>	Harris	Randolph	De Kalb
Chattahoochee	Hart	Schley	Jo Daviess
Muscogee	Henry	Seminole	Lee
<u>Metropolitan Area D</u>	Jasper	Steward	Ogle
Richmond	Jones	Sumter	Stephenson
<u>Metropolitan Area E</u>	Lamar	Terrell	Whiteside
Chatham	Lincoln	Tift	<u>Area 2</u>
<u>Area 1</u>	McDuffie	Turner	Boone
Bartow	Meriwether	Webster	McHenry
Catoosa	Monroe	Wilcox	<u>Area 3</u>
Chattooga	Morgan	Worth	Bureau
Dade	Newton	<u>Area 8</u>	Fulton
Floyd	Oconee	Appling	Hancock
Gordon	Oglethorpe	Atkinson	Henderson
Murray	Pike	Bacon	Henry
Polk	Putnam	Berrien	Knox
Whitfield	Rockdale	Brooks	McDonough
<u>Area 2</u>	Spalding	Bulloch	Marshall
Dawson	Talbot	Candler	Mercer
Fannin	Taliaferro	Coffee	Putnam
Gilmer	Troup	Colquitt	Stark
Habersham	Upson	Cook	Warren
Lumpkin	Walton	Emanuel	<u>Area 4</u>
Pickens	Warren	Evans	Adams
Rabun	Wilkes	Jeff Davis	Brown
Towns	<u>Area 5</u>	Lanier	Calhoun
Union	Bibb	Lowndes	Greene
White	Crawford	Montgomery	Jersey
<u>Area 3</u>	Glascock	Tattnall	Macoupin
Banks	Marion	Thomas	Montgomery
Barrow	Taylor	Toombs	Morgan
Carroll	Twiggs	<u>Area 9</u>	Pike
Cherokee	Washington	Brantley	Schuyler
Douglas	Wilkinson	Bryan	Scott
Forsyth	<u>Area 6</u>	Camden	<u>Area 5</u>
Franklin	Bleckley	Charlton	Grundy
Gwinnett	Burke	Clinch	Kankakee
Hall	Dodge	Echols	Kendall
	Jefferson	Effingham	La Salle
	Jenkins	Glynn	
	Johnson	Liberty	
	Laurens	Long	
	Screven	McIntosh	
	Telfair	Pierce	
	Treutlen	Ware	
	Wheeler	Wayne	
	<u>Area 7</u>	ILLINOIS	
	Baker	<u>Metropolitan Area A</u>	
	Ben Hill	Rock Island	

ILLINOIS—Con.	INDIANA—Con.	INDIANA—Con.	IOWA—Con.
<u>Area 6</u>	<u>Metropolitan Area B</u>	<u>Area 5—Con.</u>	<u>Area 1—Con.</u>
Cass	St. Joseph	Decatur	Crawford
Champaign		Hamilton	Fremont
Christian	<u>Metropolitan Area C</u>	Hancock	Harrison
Coles	Allen	Hendricks	Ida
De Witt		Johnson	Lyon
Douglas	<u>Metropolitan Area D</u>	Putnam	Mills
Edgar	Marion	Rush	Monona
Ford		Shelby	Montgomery
Iroquois	<u>Metropolitan Area E</u>	Tipton	O'Brien
Livingston	Vanderburgh		Page
Logan		<u>Area 6</u>	Plymouth
McLean	<u>Metropolitan Area F</u>	Clay	Sac
Macon	Clark	Daviess	Shelby
Mason	Floyd	Gibson	Sioux
Menard		Greene	
Moultrie	<u>Area 1</u>	Knox	<u>Area 2</u>
Piatt	Elkhart	Morgan	Boone
Shelby	La Porte	Owen	Calhoun
Vermilion	Porter	Pike	Clay
Woodford		Posey	Dallas
	<u>Area 2</u>	Spencer	Dickinson
<u>Area 7</u>	Benton	Sullivan	Emmet
Bond	Carroll	Vigo	Franklin
Clinton	Cass	Warrick	Greene
Effingham	Clinton		Hamilton
Fayette	Fountain	<u>Area 7</u>	Hancock
Monroe	Fulton	Brown	Hardin
Randolph	Jasper	Crawford	Humboldt
Washington	Kosciusko	Dubois	Kossuth
	Marshall	Harrison	Osceola
<u>Area 8</u>	Miami	Lawrence	Palo Alto
Clay	Montgomery	Martin	Pocahontas
Cumberland	Newton	Monroe	Story
Hamilton	Parke	Orange	Webster
Jasper	Pulaski	Perry	Wright
Marion	Starke	Washington	
Richland	Tipppecanoe		<u>Area 3</u>
Wayne	Vermillion		Adair
	Wabash	<u>Area 8</u>	Adams
<u>Area 9</u>	Warren	Dearborn	Appanoose
Clark	White	Franklin	Clarke
Crawford		Jackson	Davis
Edwards	<u>Area 3</u>	Jefferson	Decatur
Gallatin	Adams	Jennings	Guthrie
Lawrence	Blackford	Ohio	Jefferson
Wabash	De Kalb	Ripley	Lucas
White	Huntington	Scott	Madison
	Jay	Switzerland	Marion
<u>Area 10</u>	Lagrange		Monroe
Franklin	Noble	IOWA	Ringgold
Jefferson	Steuben	<u>Metropolitan Area A</u>	Taylor
Perry	Wells	Woodbury	Union
Saline	Whitley		Van Buren
Williamson		<u>Metropolitan Area B</u>	Wappello
		Pottawattamie	Warren
<u>Area 11</u>	<u>Area 4</u>		Wayne
Alexander	Delaware		
Hardin	Fayette	<u>Metropolitan Area C</u>	<u>Area 4</u>
Jackson	Grant	Polk	Allamakee
Johnson	Henry		Black Hawk
Massac	Howard	<u>Metropolitan Area D</u>	Bremer
Pope	Madison	Scott	Buchanan
Pulaski	Randolph		Butler
Union	Union	<u>Area 1</u>	Cerro Gordo
	Wayne	Audubon	Chickasaw
		Buena Vista	Clayton
INDIANA	<u>Area 5</u>	Carrroll	Delaware
<u>Metropolitan Area A</u>	Bartholomew	Cass	Fayette
Lake	Boone	Cherokee	Floyd
			Howard
			Mitchell

IOWA—Con.

Area 4—Con.

Winnebago
Winneshiek
Worth

Area 5

Benton
Grundy
Henry
Iowa
Jasper
Keokuk
Mahaska
Marshall
Poweshiek
Tama
Washington

Area 6

Cedar
Clinton
Des Moines
Dubuque
Jackson
Johnson
Jones
Lee
Linn
Louisa
Muscatine

KANSAS

Metropolitan Area A

Sedgwick

Metropolitan Area B

Johnson
Wyandotte

Area 1

Barber
Clark
Comanche
Ford
Grant
Gray
Greeley
Hamilton
Haskell
Kearny
Logan
Meade
Morton
Scott
Seward
Stanton
Stevens
Wallace
Wichita

Area 2

Barton
Cheyenne
Decatur
Edwards
Ellis
Ellsworth
Finney
Gove

KANSAS—Con.

Area 2—Con.

Graham
Hodgeman
Kiowa
Lane
Lincoln
Mitchell
Ness
Osborne
Pawnee
Pratt
Rawlins
Rooks
Rush
Russell
Sheridan
Sherman
Stafford
Thomas
Trego

Area 3

Clay
Cloud
Dickinson
Harper
Harvey
Kingman
McPherson
Marion
Ottawa
Reno
Rice
Saline
Sumner

Area 4

Jewell
Marshall
Norton
Phillips
Republic
Smith
Washington

Area 5

Butler
Chase
Chautauqua
Cowley
Elk
Geary
Greenwood
Lyon
Morris
Pottawatomie
Riley
Wabaunsee

Area 6

Atchison
Brown
Doniphan
Douglas
Jackson
Jefferson
Leavenworth
Nemaha
Shawnee

KANSAS—Con.

Area 7

Allen
Anderson
Bourbon
Cherokee
Coffey
Crawford
Franklin
Labette
Linn
Miami
Montgomery
Neosho
Osage
Wilson
Woodson

KENTUCKY

Metropolitan Area A

Jefferson

Metropolitan Area B

Campbell
Kenton

Metropolitan Area C

Boyd

Area 1

Ballard
Calloway
Carlisle
Fulton
Graves
Hickman
McCracken
Marshall

Area 2

Daviess
Henderson
McLean
Union
Webster

Area 3

Breckinridge
Bullitt
Butler
Caldwell
Crittenden
Edmonson
Grayson
Green
Hancock
Hardin
Hart
Hopkins
Larue
Livingston
Lyon
Meade
Muhlenberg
Ohio
Taylor

Area 4

Barren
Christian

KENTUCKY—Con.

Area 4—Con.

Logan
Simpson
Todd
Trigg
Warren

Area 5

Adair
Allen
Casey
Clinton
Cumberland
Lincoln
Metcalf
Monroe
Pulaski
Rockcastle
Russell
Wayne

Area 6

Anderson
Bath
Boone
Boyle
Bracken
Carroll
Fleming
Franklin
Gallatin
Garrard
Grant
Henry
Madison
Marion
Mason
Montgomery
Nelson
Nicholas
Oldham
Owen
Pendleton
Robertson
Shelby
Spencer
Trimble
Washington

Area 7

Bourbon
Clark
Fayette
Harrison
Jessamine
Mercer
Scott
Woodford

Area 8

Carter
Clay
Elliott
Estill
Greenup
Jackson
Laurel
Lawrence
Lee
Lewis
Magoffin
Miniffee

KENTUCKY—Con.	LOUISIANA—Con.	MARYLAND—Con.	MICHIGAN—Con.
<u>Area 8—Con.</u> Morgan Owsley Powell Rowan Wolfe	<u>Area 5</u> East Baton Rouge East Feliciana Livingston Plaquemines St. Charles St. Helena St. Tammany Tangipahoa Washington West Feliciana	<u>Area 4—Con.</u> Dorchester Kent Queen Annes Somerset Talbot Wicomico Worcester	<u>Area 1</u> Baraga Dickinson Gogebic Houghton Iron Keweenaw Marquette Ontonagon
<u>Area 9</u> Bell Breathitt Floyd Harlan Johnson Knott Knox Leslie Letcher McCreary Martin Perry Pike Whitley	<u>Area 6</u> Ascension Assumption Iberia Iberville Lafourche St. James St. John the Baptist St. Martin St. Mary Terrebonne West Baton Rouge	MASSACHUSETTS <u>Metropolitan Area A</u> Hampden Hampshire <u>Metropolitan Area B</u> Worcester <u>Metropolitan Area C</u> Essex Middlesex Norfolk Suffolk <u>Metropolitan Area D</u> Plymouth <u>Metropolitan Area E</u> Bristol	<u>Area 2</u> Alger Chippewa Delta Luce Mackinac Menominee Schoolcraft <u>Area 3</u> Benzie Grand Traverse Leelanau Manistee Mason Oceana <u>Area 4</u> Alcona Alpena Antrim Arenac Charlevoix Cheboygan Clare Crawford Emmet Gladwin Iosco Kalkaska Lake Mecosta Missaukee Montmorency Newaygo Ogemaw Osceola Oscoda Otsego Presque Isle Roscommon Wexford
LOUISIANA <u>Metropolitan Area A</u> Caddo <u>Metropolitan Area B</u> Jefferson Orleans St. Bernard <u>Area 1</u> Bossier Natchitoches Rapides Red River <u>Area 2</u> Catahoula Concordia East Carroll Franklin Madison Morehouse Ouachita Richland Tensas West Carroll <u>Area 3</u> Avoyelles Evangeline Lafayette Pointe Coupee St. Landry <u>Area 4</u> Bienville Caldwell Claiborne Grant Jackson La Salle Lincoln Union Webster Winn	<u>Area 7</u> Acadia Allen Calcasieu Cameron Jefferson Davis Vermilion <u>Area 8</u> Beauregard De Soto Sabine Vernon MARYLAND <u>Metropolitan Area A</u> Anne Arundel Baltimore Baltimore City <u>Metropolitan Area B</u> Montgomery Prince Georges <u>Area 1</u> Allegany Garrett <u>Area 2</u> Carroll Frederick Harford Howard Washington <u>Area 3</u> Calvert Charles St. Marys <u>Area 4</u> Caroline Cecil	<u>Area 1</u> Berkshire Franklin <u>Area 2</u> Barnstable Dukes Nantucket MICHIGAN <u>Metropolitan Area A</u> Saginaw <u>Metropolitan Area B</u> Kent <u>Metropolitan Area C</u> Muskegon <u>Metropolitan Area D</u> Genesee <u>Metropolitan Area E</u> Ingham <u>Metropolitan Area F</u> Macomb Oakland Wayne <u>Metropolitan Area G</u> Kalamazoo	<u>Area 5</u> Bay Gratiot Huron Isabella Midland Montcalm Sanilac Tuscola <u>Area 6</u> Allegan Berrien Ottawa Van Buren

MICHIGAN—Con.

MINNESOTA—Con.

MISSOURI—Con.

MISSOURI—Con.

Area 7

Clinton
Eaton
Ionia
Jackson
Lapeer
Livingston
Shiawassee

Area 8

Monroe
St. Clair
Washtenaw

Area 9

Barry
Branch
Calhoun
Cass
Hillsdale
Lenawee
St. Joseph

MINNESOTA

Metropolitan Area A

St. Louis

Metropolitan Area B

Anoka
Dakota
Hennepin
Ramsey

Area 1

Clay
Kittson
Marshall
Norman
Pennington
Polk
Red Lake
Roseau
Wilkin

Area 2

Aitkin
Beltrami
Carlton
Cass
Clearwater
Cook
Crow Wing
Hubbard
Itasca
Koochiching
Lake
Lake of the Woods

Area 3

Becker
Douglas
Mahnommen
Otter Tail
Todd
Wadena

Area 4

Benton
Chisago
Isanti
Kanabec
Mille Lacs
Morrison
Pine
Sherburne

Area 5

Big Stone
Chippewa
Grant
Kandiyohi
Lac Qui Parle
Pope
Redwood
Renville
Stevens
Swift
Traverse
Yellow Medicine

Area 6

Carver
Dodge
Goodhue
McLeod
Meeker
Olmsted
Rice
Scott
Stearns
Steele
Wabasha
Washington
Winona
Wright

Area 7

Blue Earth
Brown
Fillmore
Freeborn
Houston
Le Sueur
Mower
Nicollet
Sibley
Waseca

Area 8

Cottonwood
Faribault
Jackson
Lincoln
Lyon
Martin
Murray
Nobles
Pipestone
Rock
Watsonwan

MISSOURI

Metropolitan Area A

Clay
Jackson

Metropolitan Area B

St. Charles
St. Louis
St. Louis City

Area 1

Andrew
Atchison
Buchanan
Carroll
Clinton
Holt
Lafayette
Nodaway
Platte
Ray
Saline

Area 2

Adair
Audrain
Boone
Caldwell
Callaway
Chariton
Clark
Daviess
De Kalb
Gentry
Grundy
Harrison
Howard
Knox
Lewis
Lincoln
Linn
Livingston
Macon
Marion
Mercer
Monroe
Montgomery
Pike
Putnam
Ralls
Randolph
Schuyler
Scotland
Shelby
Sullivan
Worth

Area 3

Barton
Bates
Cass
Cedar
Cooper
Dade
Henry
Johnson
Pettis
St. Clair
Vernon

Area 4

Barry
Jasper
Lawrence
McDonald
Newton

Area 5

Benton
Camden
Crawford
Hickory
Laclede
Maries
Miller
Morgan
Phelps
Pulaski
Washington

Area 6

Bollinger
Cape Girardeau
Cole
Franklin
Gasconade
Jefferson
Moniteau
Osage
Perry
Ste. Genevieve
Warren

Area 7

Christian
Dallas
Douglas
Greene
Howell
Ozark
Polk
Stone
Taney
Texas
Webster
Wright

Area 8

Carter
Dent
Iron
Madison
Oregon
Reynolds
Ripley
St. Francois
Shannon
Wayne

Area 9

Butler
Dunklin
Mississippi
New Madrid
Pemiscot
Scott
Stoddard

NEW JERSEY

Metropolitan Area A

Warren

Metropolitan Area B

Bergen
Essex
Hudson

OKLAHOMA—Con.

OKLAHOMA—Con.

PENNSYLVANIA—Con.

TENNESSEE—Con.

Area 2

Alfalfa
Blaine
Canadian
Garfield
Grant
Kay
Kingfisher
Major
Noble

Area 3

Craig
Mayes
Nowata
Osage
Ottawa
Rogers
Washington

Area 4

Beckham
Caddo
Comanche
Cotton
Grady
Greer
Harmon
Jackson
Kiowa
Tillman
Washita

Area 5

Cleveland
Garvin
Lincoln
Logan
McClain
Pawnee
Payne
Pottawatomie

Area 6

Coal
Creek
Hughes
Okfuskee
Pontotoc
Seminole

Area 7

Bryan
Carter
Choctaw
Jefferson
Johnston
Love
Marshall
Murray
Stephens

Area 8

Adair
Cherokee
Delaware
Haskell
McIntosh
Muskogee
Okmulgee
Sequoyah
Wagoner

Area 9

Atoka
Latimer
Le Flore
McCurtain
Pittsburg
Pushmataha

PENNSYLVANIA

Metropolitan Area A

Erie

Metropolitan Area B

Mercer

Metropolitan Area C

Lackawanna

Metropolitan Area D

Allegheny
Beaver
Washington
Westmoreland

Metropolitan Area E

Cambria
Somerset

Metropolitan Area F

Blair

Metropolitan Area G

Luzerne

Metropolitan Area H

Cumberland
Dauphin

Metropolitan Area J

York

Metropolitan Area K

Lancaster

Metropolitan Area L

Berks

Metropolitan Area M

Lehigh
Northampton

Metropolitan Area N

Bucks
Chester
Delaware
Montgomery
Philadelphia

Area 1

Armstrong
Butler
Crawford
Lawrence
McKean
Venango
Warren

Area 2

Bradford
Potter
Susquehanna
Tioga
Wayne
Wyoming

Area 3

Cameron
Clinton
Elk
Forest
Lycoming
Sullivan

Area 4

Clarion
Clearfield
Fayette
Greene
Indiana
Jefferson

Area 5

Bedford
Centre
Fulton
Huntingdon
Juniata
Mifflin
Perry
Snyder
Union

Area 6

Carbon
Columbia
Monroe
Montour
Northumberland
Pike
Schuylkill

Area 7

Adams
Franklin
Lebanon

TENNESSEE

Metropolitan Area A

Shelby

Metropolitan Area B

Davidson

Metropolitan Area C

Hamilton

Metropolitan Area D

Anderson
Blount
Knox

Area 1

Crockett
Dyer
Fayette
Gibson
Hardeman
Haywood
Lake
Lauderdale
Madison
Obion
Tipton

Area 2

Benton
Carroll
Chester
Decatur
Hardin
Henderson
Henry
McNairy
Weakley

Area 3

Dickson
Hickman
Houston
Humphreys
Lawrence
Lewis
Perry
Stewart
Wayne

Area 4

Cheatham
Montgomery
Robertson
Sumner

Area 5

Bedford
Giles
Lincoln
Marshall
Maury
Moore
Rutherford
Smith
Trousdale
Williamson
Wilson

Area 6

Cannon
Clay
Coffee
De Kalb
Franklin
Jackson
Macon
Overton
Pickett
Putnam
Warren
White

Area 7

Bledsoe
Cumberland

TENNESSEE—Con.

TEXAS—Con.

TEXAS—Con.

TEXAS—Con.

Area 7—Con.

Fentress
Grundy
Marion
Morgan
Scott
Sequatchie
Van Buren

Area 8

Bradley
Campbell
Carter
Claiborne
Cocke
Grainger
Greene
Hamblen
Hancock
Hawkins
Jefferson
Johnson
Loudon
McMinn
Meigs
Monroe
Polk
Rhea
Roane
Sevier
Sullivan
Unicoi
Union
Washington

TEXAS

Metropolitan Area A

El Paso

Metropolitan Area B

Tarrant

Metropolitan Area C

Dallas

Metropolitan Area D

McLennan

Metropolitan Area E

Travis

Metropolitan Area F

Bexar

Metropolitan Area G

Harris

Metropolitan Area H

Jefferson

Area 1

Brewster
Crockett
Culberson
Edwards
Glasscock

Area 1—Con.

Hudspeth
Irion
Jeff Davis
Kimble
Kinney
Loving
Menard
Pecos
Presidio
Reagan
Real
Reeves
Schleicher
Sterling
Sutton
Terrell
Upton
Uvalde
Val Verde
Ward

Area 2

Bandera
Blanco
Coke
Comal
Concho
Gillespie
Hays
Kendall
Kerr
Llano
McCulloch
Mason
Medina
San Saba
Tom Green

Area 3

Brooks
Dimmit
Duval
Jim Hogg
Kenedy
Kleberg
La Salle
McMullen
Maverick
Starr
Webb
Zapata
Zavala

Area 4

Armstrong
Briscoe
Carson
Castro
Dallam
Deaf Smith
Floyd
Gray
Hale
Hansford
Hartley
Hemphill
Hutchinson
Lipscomb
Moore
Ochiltree

Area 4—Con.

Oldham
Parmer
Potter
Randall
Roberts
Sherman
Swisher

Area 5

Andrews
Bailey
Cochran
Crane
Crosby
Dawson
Ector
Gaines
Hockley
Howard
Lamb
Lubbock
Lynn
Martin
Midland
Terry
Winkler
Yoakum

Area 6

Archer
Baylor
Borden
Brown
Callahan
Childress
Clay
Coleman
Collingsworth
Cottle
Dickens
Donley
Fisher
Foard
Garza
Hall
Hardeman
Haskell
Jones
Kent
King
Knox
Mitchell
Motley
Nolan
Runnels
Scurry
Shackelford
Stephens
Stonewall
Taylor
Throckmorton
Wheeler
Wichita
Wilbarger
Young

Area 7

Bosque
Burnet
Comanche

Area 7—Con.

Cooke
Coryell
Denton
Eastland
Erath
Hamilton
Hood
Jack
Johnson
Lampasas
Montague
Mills
Palo Pinto
Parker
Somervell
Wise

Area 8

Bell
Collin
Delta
Ellis
Falls
Fannin
Grayson
Hill
Hunt
Kaufman
Lamar
Limestone
Milam
Navarro
Rockwall
Williamson

Area 9

Bastrop
Brazos
Burleson
Freestone
Grimes
Lee
Leon
Madison
Robertson

Area 10

Caldwell
Fayette
Gonzales
Guadalupe
Lavaca
Washington

Area 11

Aransas
Atascosa
Bee
De Witt
Frio
Goliad
Jim Wells
Karnes
Live Oak
Nueces
Refugio
San Patricio
Wilson

TEXAS—Con.

WASHINGTON—Con.

WEST VIRGINIA—Con.

WEST VIRGINIA—Con.

Area 12

Anderson
Bowie
Camp
Cass
Cherokee
Franklin
Gregg
Harrison
Henderson
Hopkins
Houston
Marion
Morris
Nacogdoches
Panola
Rains
Red River
Rusk
Shelby
Smith
Titus
Upshur
Van Zandt
Wood

Area 13

Angelina
Hardin
Jasper
Montgomery
Newton
Polk
Sabine
San Augustine
San Jacinto
Trinity
Tyler
Walker

Area 14

Austin
Brazoria
Calhoun
Chambers
Colorado
Fort Bend
Galveston
Jackson
Liberty
Matagorda
Orange
Victoria
Waller
Wharton

Area 15

Cameron
Hidalgo
Willacy

Metropolitan Area B

Pierce

Metropolitan Area C

Clark

Metropolitan Area D

Spokane

Area 1

Clallam
Grays Harbor
Jefferson
Mason
Pacific
Wahkiakum

Area 2

Island
San Juan
Skagit
Snohomish
Whatcom

Area 3

Kitsap

Area 4

Cowlitz
Lewis
Skamania
Thurston

Area 5

Chelan
Ferry
Okanogan
Pend Oreille
Stevens

Area 6

Benton
Kittitas
Klickitat
Yakima

Area 7

Adams
Asotin
Columbia
Douglas
Franklin
Garfield
Grant
Lincoln
Walla Walla
Whitman

WEST VIRGINIA

Metropolitan Area A

Brooke
Hancock

Metropolitan Area A—Con.

Marshall
Ohio

Metropolitan Area B

Cabell
Wayne

Metropolitan Area C

Fayette
Kanawha

Area 1

Pleasants
Tyler
Wetzel
Wood

Area 2

Braxton
Calhoun
Clay
Doddridge
Gilmer
Jackson
Lewis
Lincoln
Mason
Nicholas
Putnam
Ritchie
Roane
Upshur
Webster
Wirt

Area 3

Barbour
Harrison
Marion
Monongalia
Preston
Taylor

Area 4

Boone
Logan
McDowell
Mercer
Mingo
Raleigh
Wyoming

Area 5

Grant
Greenbrier
Hampshire
Hardy
Mineral
Monroe
Pendleton
Pocahontas
Randolph
Summers
Tucker

Area 6

Berkeley
Jefferson
Morgan

WISCONSIN

Metropolitan Area A

Douglas

Metropolitan Area B

Dane

Metropolitan Area C

Milwaukee

Area 1

Ashland
Bayfield
Burnett
Florence
Forest
Iron
Langlade
Lincoln
Oneida
Price
Rusk
Sawyer
Vilas
Washburn

Area 2

Barron
Buffalo
Dunn
La Crosse
Monroe
Pepin
Pierce
Polk
Richland
St. Croix
Sauk
Trempealeau
Vernon

Area 3

Crawford
Grant
Green
Iowa
Lafayette

Area 4

Chippewa
Clark
Eau Claire
Marathon
Taylor
Wood

Area 5

Adams
Jackson

WASHINGTON

Metropolitan Area A

King

WISCONSIN—Con.	WISCONSIN—Con.	WISCONSIN—Con.	WISCONSIN—Con.
<u>Area 5—Con.</u>	<u>Area 6—Con.</u>	<u>Area 7—Con.</u>	<u>Area 8—Con.</u>
Juneau	Oconto	Outagamie	Jefferson
Marquette	Shawano	Sheboygan	Ozaukee
Portage	Waupaca	Winnebago	Rock
Waushara			Walworth
	<u>Area 7</u>	<u>Area 8</u>	Washington
<u>Area 6</u>	Brown	Columbia	Waukesha
Door	Calumet	Dodge	<u>Area 9</u>
Kewaunee	Fond du Lac	Green Lake	Kenosha
Marinette	Manitowoc		Racine



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